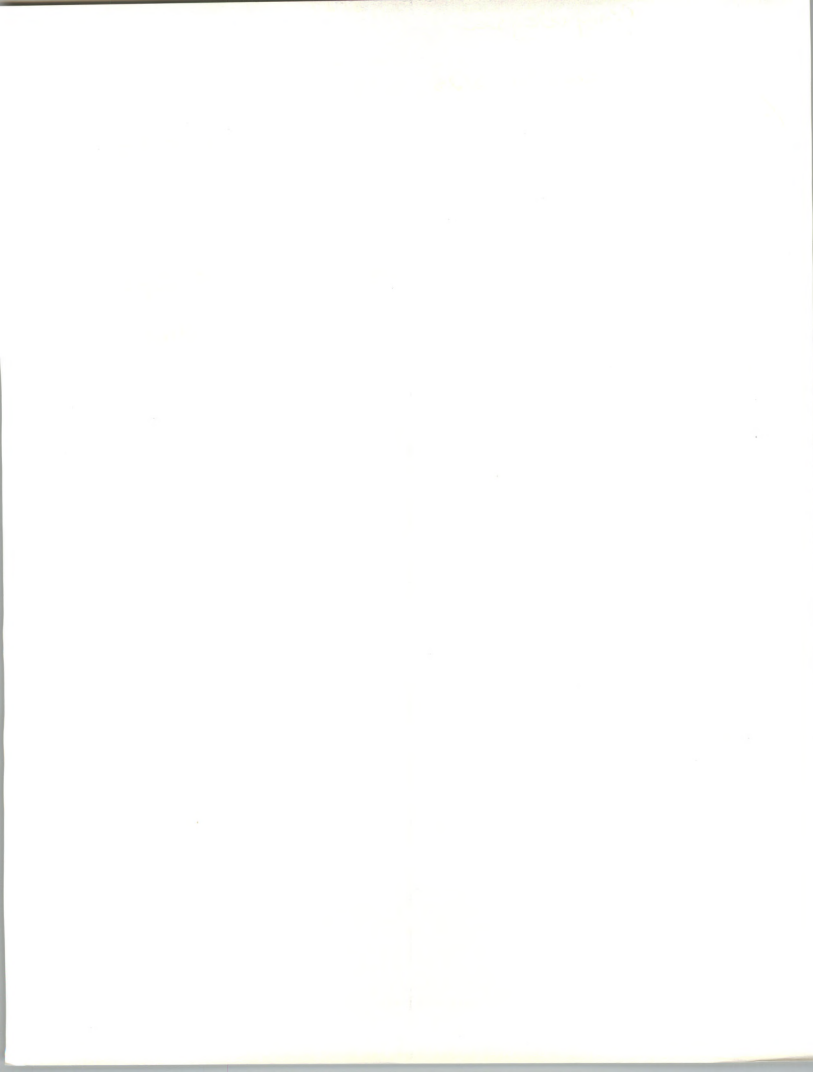


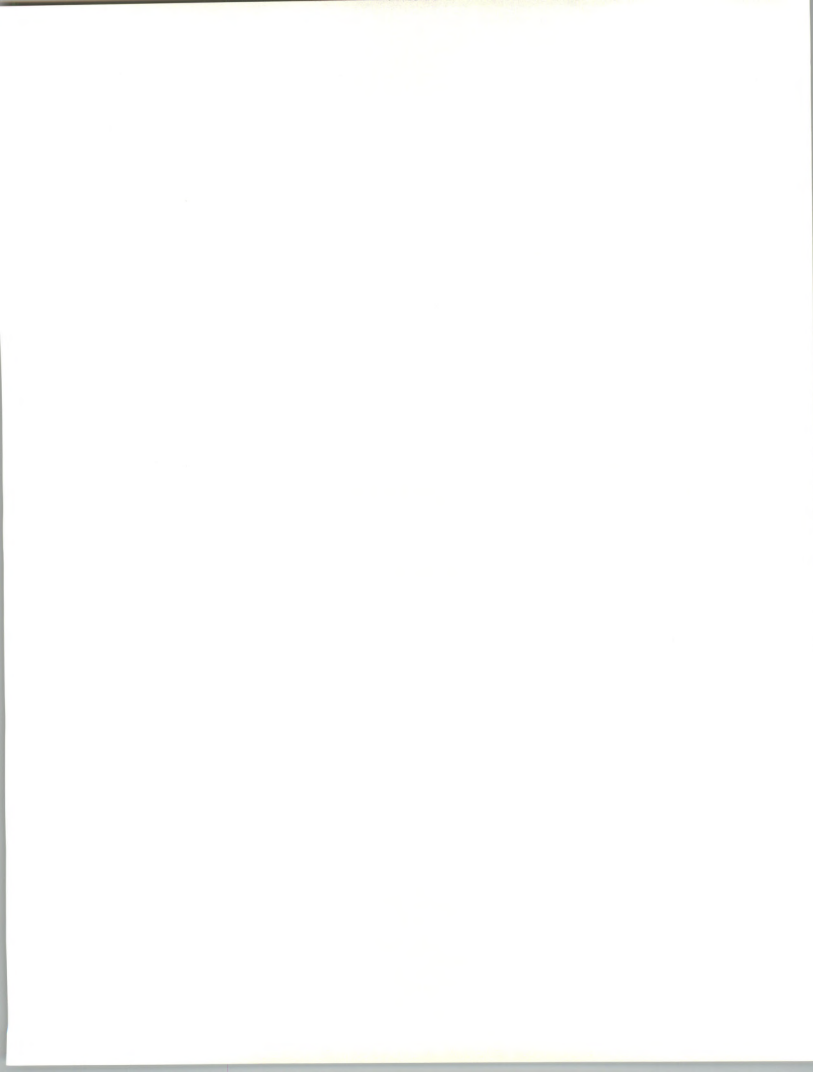
**Integrated Office
Information Systems
The Business Case**



Integrated Office Information Systems The Business Case

INPUT

R. Dennis Wayson
Vice President

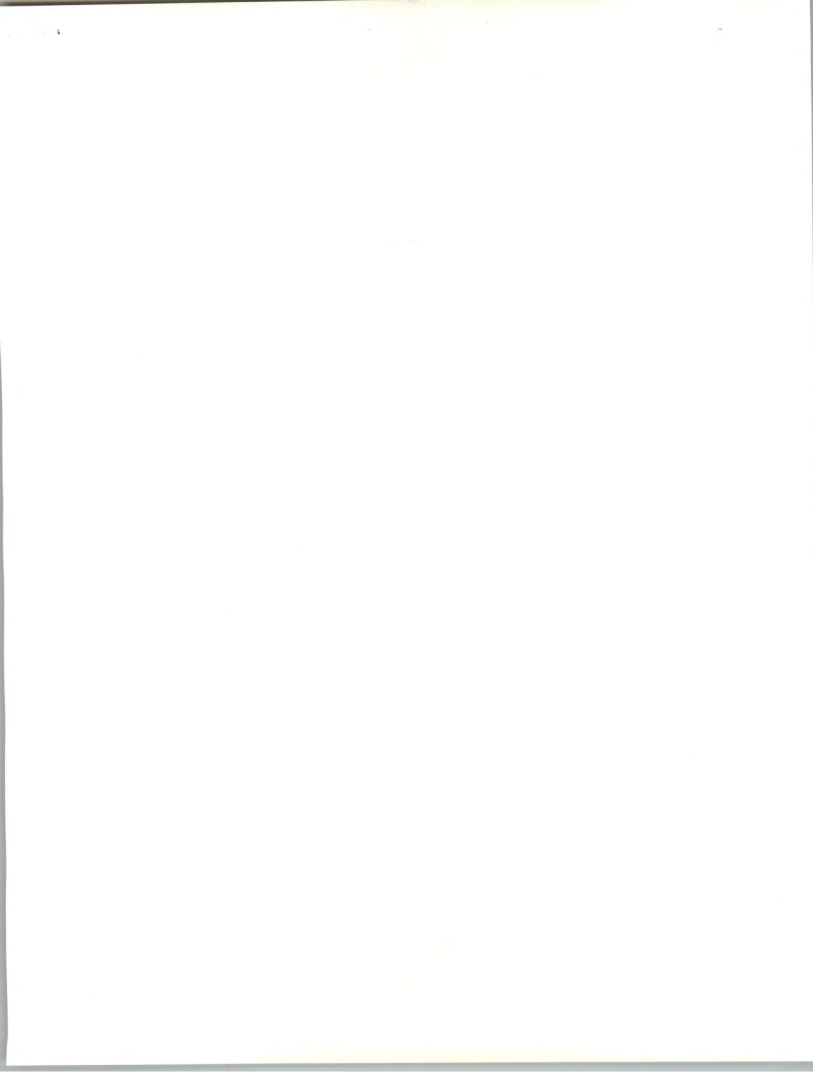


Objective

To show how today's business and technology drivers demand that business provide an environment that integrates information at the office/workstation level.

INPUT
UIMKT-2

Notes

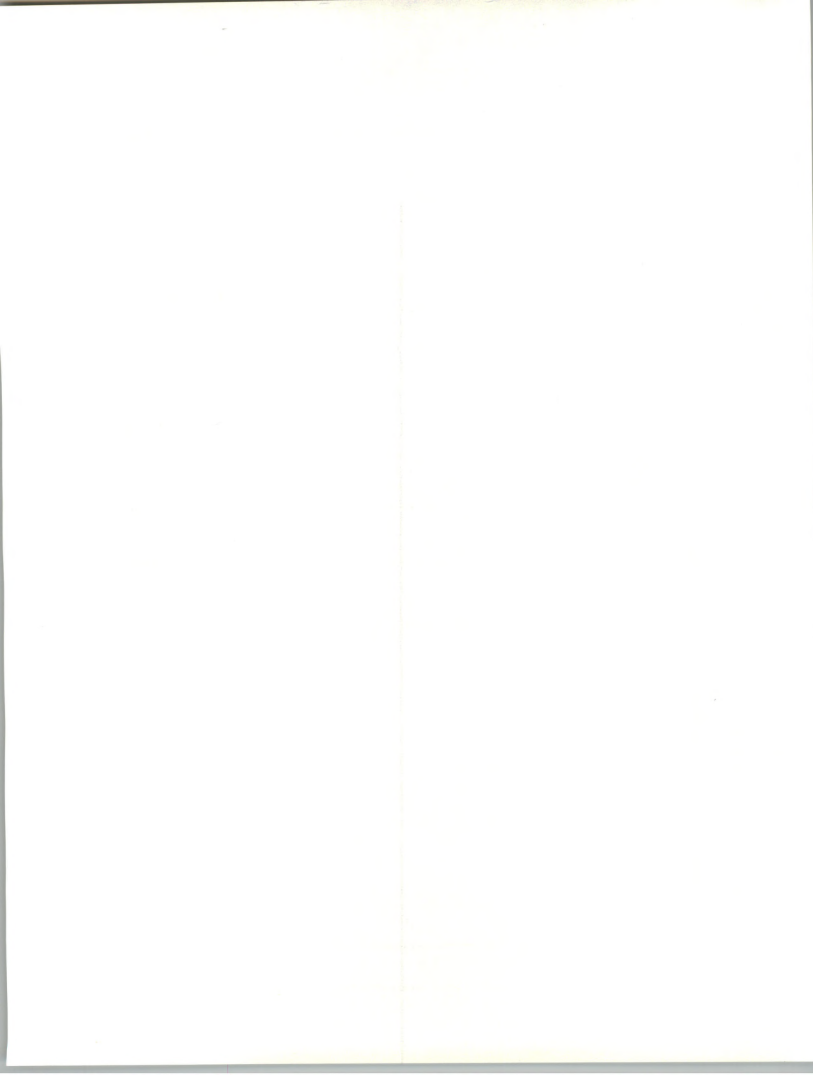


Background Sources of Information

- Specialized Studies (1989-1990)
 - *Data Base Technology*
 - *End-User Computing*
 - *Executive Information Systems*
- INPUT's Annual User Survey
- Andersen CIO Study

INPUT
UIMKT-3

Notes

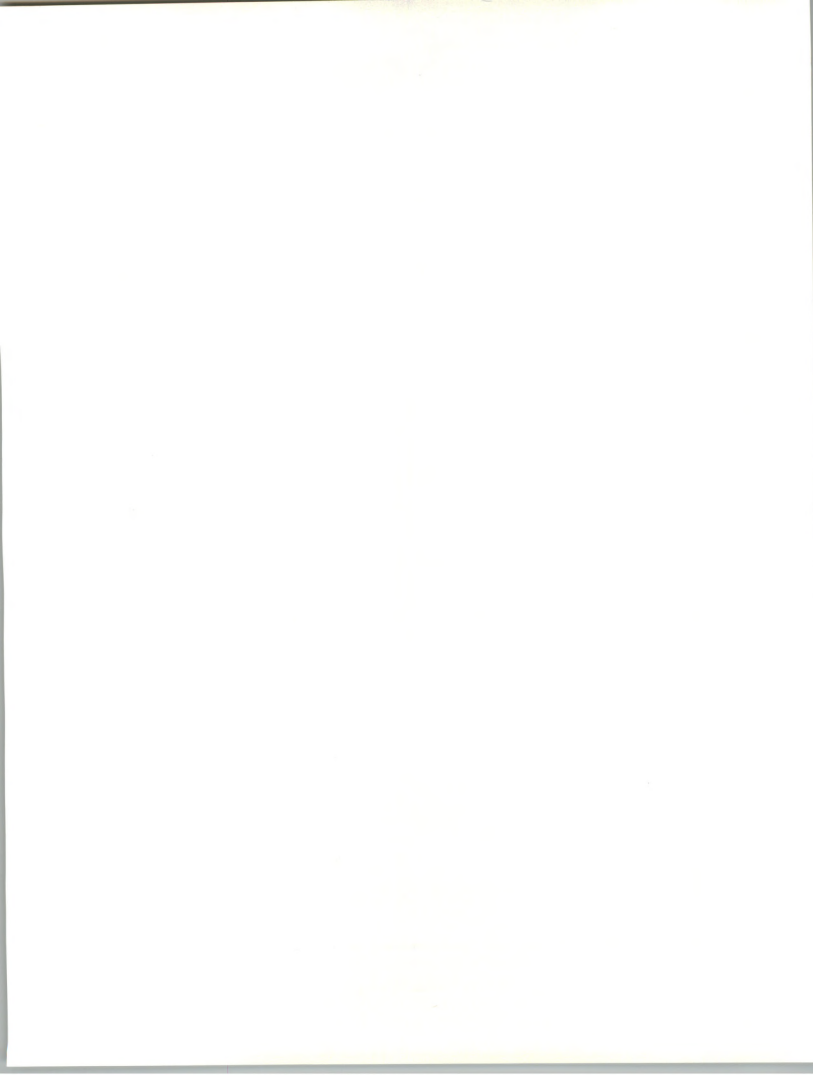


Overview

- Business drivers, the IS response
- Impacts of new applications/technologies
- Implications for office information systems
- The value of integrated office architectures

INPUT
UIMKT-4

Notes



Primary Business Drivers

Driver	Arena
Globalization	International competition International opportunities
Specialization	Products and markets Manufacture and delivery
Integration	Interbusiness Intrabusiness
Pace	Product and market Organizational response

INPUT
UIMKT-5

Notes

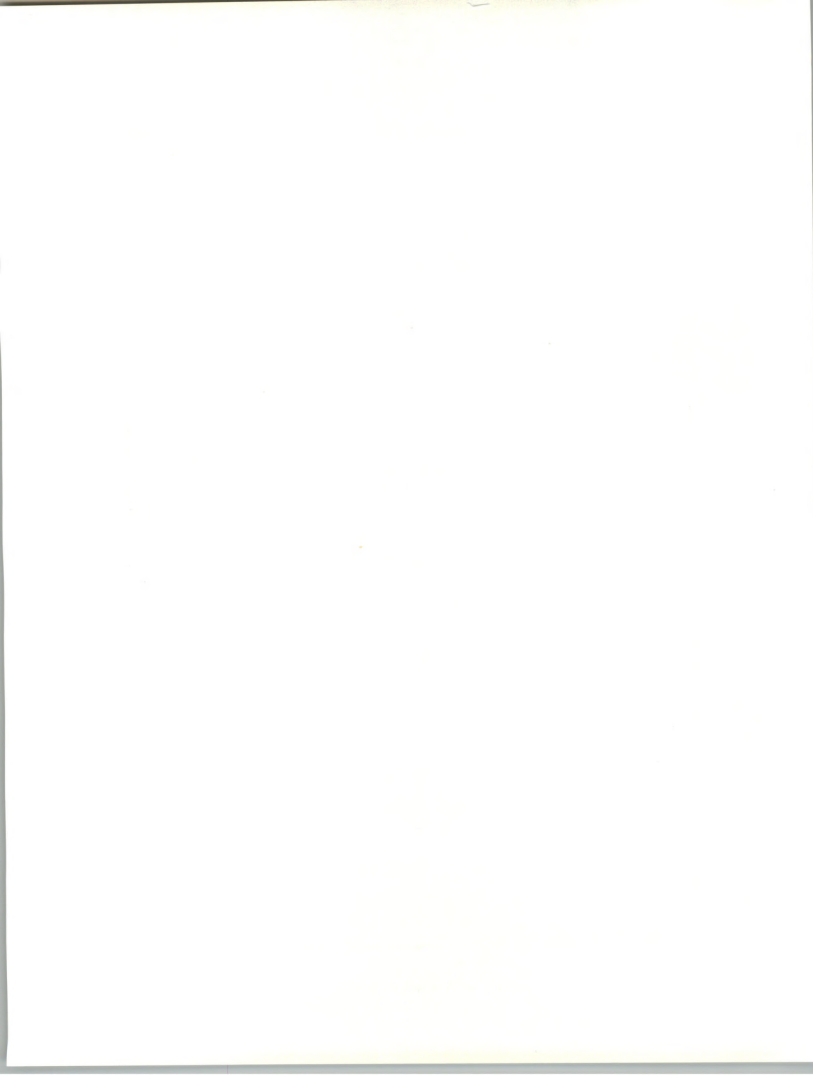


Impacts on Information Systems

IS Organization/IS Processes

INPUT
UIMKT-6

Notes



Federated IS Organization

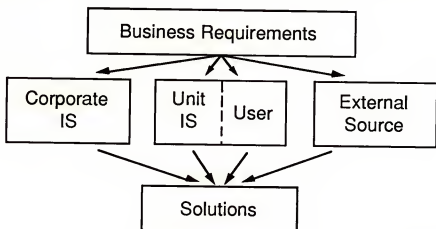
Corporate IS	Unit IS
Competition	Customers
Partnerships	Business Support
Standards	Operating Systems
Corporate Systems	Policy
Corporate Policies	

INPUT
UIMKT-7

Notes

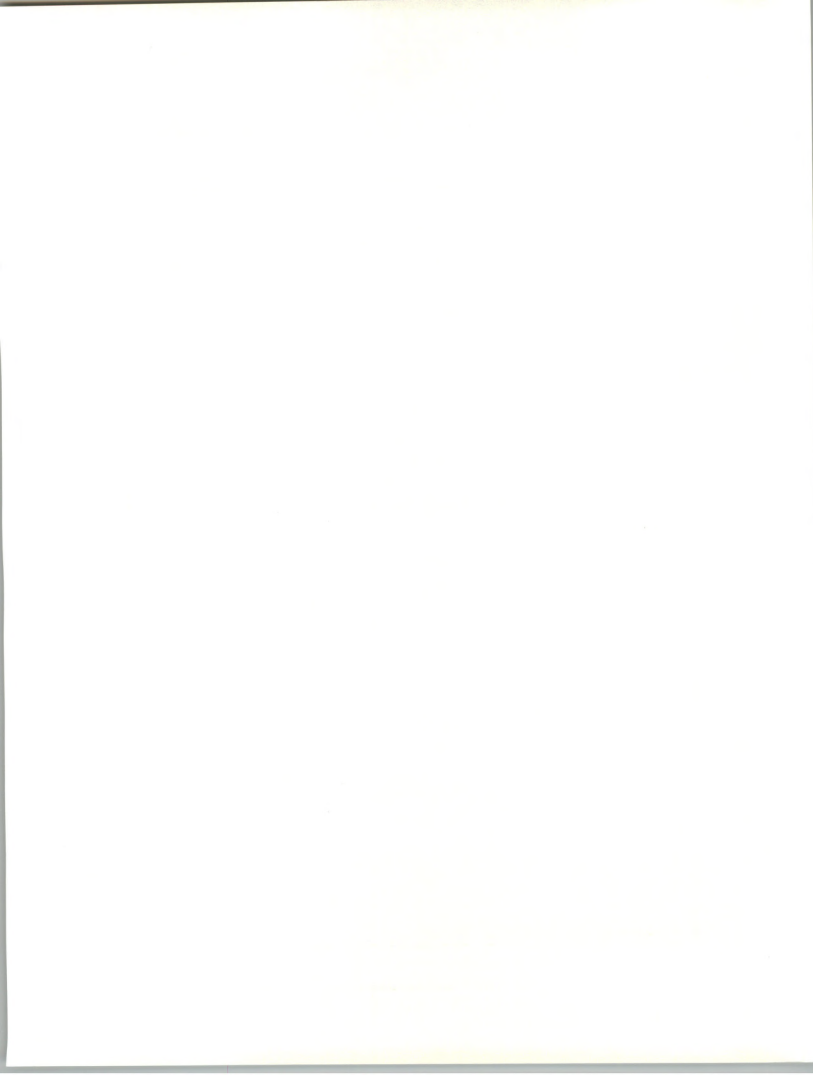


Development Environment



INPUT
UIMKT-8

Notes



Network Environment

Intelligent
Workstation =



Window to
Information Services

Local
Distributed
Central
External

INPUT
UIMKT-9

Notes



Implications of Business Trends

Direction	Area of Impact
Standardization	Information architecture Technology architecture
Decentralization	Applications management Management information
Integration	Across the network At the user interface

INPUT
UIMKT-10

Notes



New Technologies and Applications

Facilitate Integration

INPUT
UIMKT-11

Notes



From INPUT's Recent Study on End-User Computing

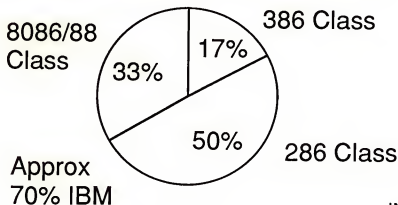
- Involving 160 Fortune One Thousand EUC functions
- Supporting on the average:
 - *516 PC/workstations per function*
 - *724 dumb terminals per function*

INPUT
UIMKT-12

Notes



Platforms Supported Makeup of PC Sample

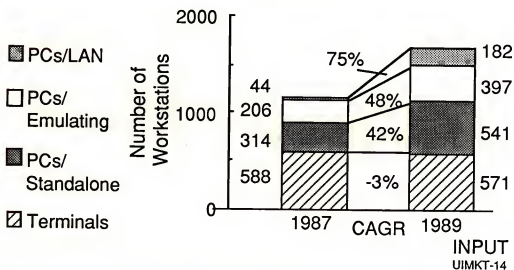


INPUT
UIMKT-13

Notes



Workstation Platform Growth, 1987-1989



Notes



From INPUT's Study on Executive Information Systems

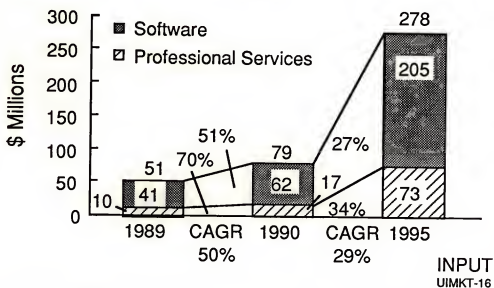
- Involving 126 firms in the Fortune One Thousand
- Involving 16 major vendors of EIS products/service

INPUT
UIMKT-15

Notes



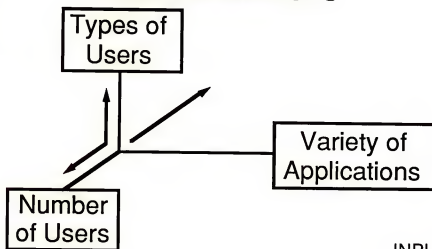
EIS Market Forecast, 1990-1995



Notes



Future EIS Characteristics Three Dimensions



INPUT
UIMKT-17

Notes



Underlying Reasons for EIS Success

- Integration of applications
 - *Personal, office, traditional*
- Graphic interface/ease of use
- Increasingly powerful data pipelines
- Growing tool-kit orientation

INPUT
UIMKT-18

Notes



From INPUT's Study on Data Base Systems Developments

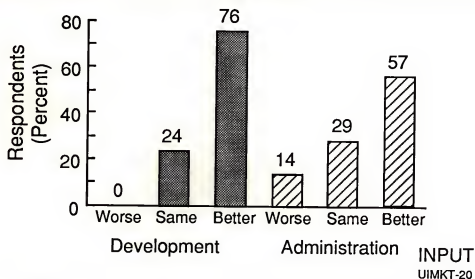
- Involving over 150 Fortune One Thousand companies
- Conducted in 1988, updated in 1989

INPUT
UIMKT-19

Notes



Relational DBMS Productivity Development/Administration Comparison



Notes



Impacts Relation/Distributed Relational

- Facilitate distributed development
- Increase new development productivity
- Provide enriched pipeline for EIS
- Provide sophisticated environment for office systems

INPUT
UIMKT-21

Notes



Implications of These Studies

- Increasing emphasis on integration at office level
- User access to all levels of computing resource
 - *Transaction processing*
 - *Management information*
 - *Office and personal systems*

INPUT
UIMKT-22

Notes



Implications for Office Information Systems

Must be architected to:

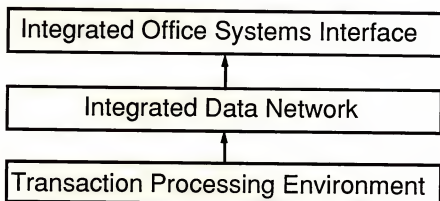
- Provide integrated support (all levels)
- A single interface (all levels)
- Accommodate new/emerging technologies

INPUT
UIMKT-23

Notes



Office Systems Generalized Model

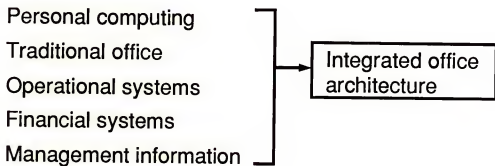


INPUT
UIMKT-24

Notes

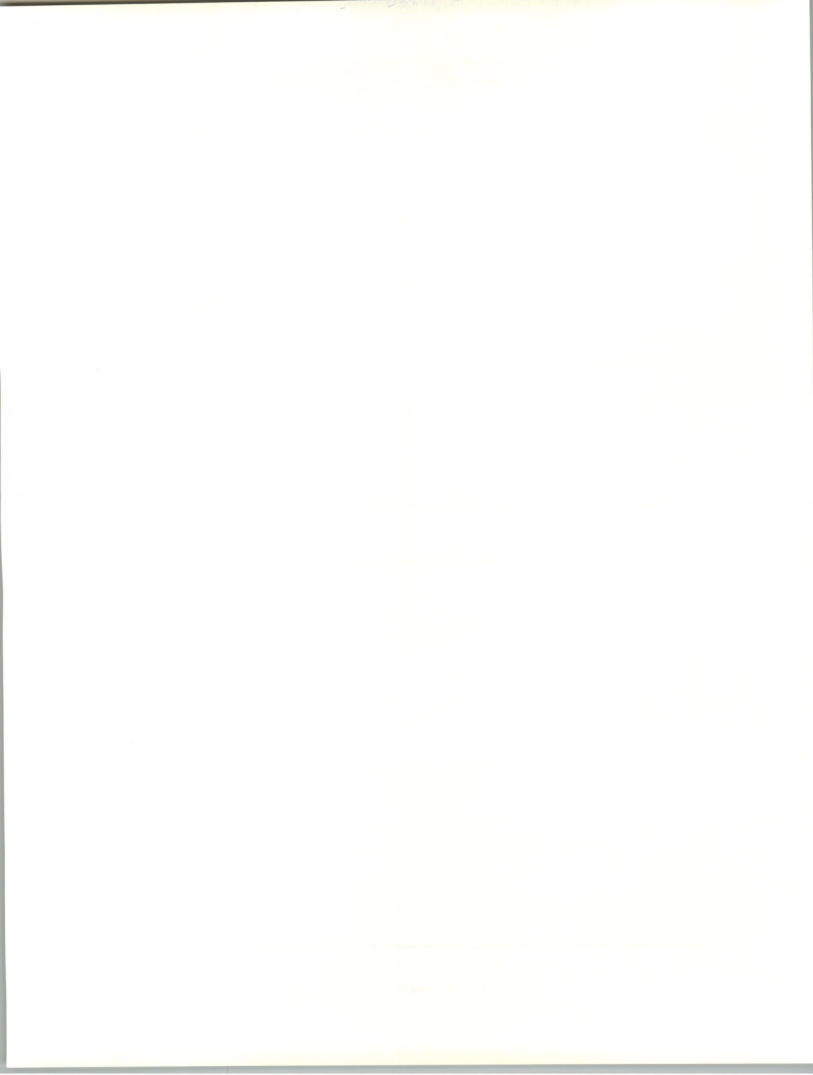


Hierarchy of Supporting Systems



INPUT
UIMKT-25

Notes



Business-Value Integrated Office Architecture

Investment for:

Current operating efficiency

Long-term cost savings

Meeting business objectives

INPUT
UIMKT-26

Notes



Source of Long-Term Cost Savings

- Optimizing cycle utilization
- Minimizing development costs
- Minimizing training costs
- Managing technology migration
- Achieving platform independence

INPUT
UIMKT-27

Notes



Cycle Utilization...

- 80% Workstation cycles in idle
- 90% Mainframe utilized

Development Costs...

- 30% Reduction - end users
- 40% Reduction - programming staff

INPUT
UIMKT-28

Notes



Training Expense...

- 40% Reduction for end users
(INPUT's End-User Computing Study)

INPUT
UIMKT-29

Notes



*Technology Migration...
Unknown*

*Platform Independence...
Unknown*

But Significant!

INPUT
UIMKT-30

Notes



Meeting Other Business Objectives

- Responding to changing business needs
- Tailoring for specialized business environments
- Supporting transient requirements

INPUT
UIMKT-31

Notes



Summing It Up

- *Integrated office architecture...*
 - Provides short/long-term cost saving
 - Sets the stage for long-term business needs

INPUT
UIMKT-32

Notes



About INPUT

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Continuous-information advisory services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services (software, processing services, turnkey systems, systems integration, professional services, communications, systems/software maintenance and support).

Many of INPUT's professional staff members have more than 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed as a privately held corporation in 1974, INPUT has become a leading international research and consulting firm. Clients include more than 100 of the world's largest and most technically advanced companies.

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Slide #1

**Integrated Office Information Systems
The Business Case**

INPUT

R. Dennis Wayson
Vice President

Slide #2

Objective

To show how today's business and technology drivers demand that business provide an environment which integrates information at the office/workstation level.

Slide #3

**Background
Sources of Information**

- Specialized Studies (1989 -1990)

Data Base Technology

End-User Computing

Executive Information Systems

- INPUT's Annual User Survey
- Andersen CIO Study



Slide #4

Overview

- Business Drivers, The IS Response
 - Impacts of New Applications/Technologies
 - Implications for Office Information Systems
 - The Value of Integrated Office Architectures
-

Slide #5

Primary Business Drivers

DRIVER	ARENA
Globalization	International Competition International Opportunities
Specialization	Products & Markets Manufacture & Delivery
Integration	Inter-Business Intra-Business
Pace	Product & Market Organizational Response

Slide #6

Impacts On Information Systems

IS Organization/IS Processes



Slide #7

Insert Slide **JJ89-RDW-25**

Slide #8

Insert Slide **JJ89-RDW-27**

Slide #9

Insert Slide **JJ89-RDW-26**

Slide #10

Implications of Business Trends

DIRECTION	AREA OF IMPACT
Standardization	Information Architecture Technology Architecture
Decentralization	Applications Management Management Information
Integration	Across the Network At the User Interface

Slide #11

New Technologies and Applications

Facilitate Integration



Slide #12

From INPUT's Recent Study on End User Computing

- Involving 160 Fortune One Thousand EUC Functions
- Supporting on the Average:

*516 PC/Workstations Per Function
724 Dumb Terminals Per Function*

Slide #13

Insert Slide UMKT-DRW-20

Slide #14

Insert Slide UMKT-DRW-24

Slide #15

From INPUT's Study on Executive Information Systems

- Involving 126 Firms in the Fortune 1000
 - Involving 16 Major Vendors of EIS Products/Service
-

Slide #16

Insert Exhibit II-12, UIEIS
EIS Market Forecast, 1990 - 1995

Slide #17

Insert Exhibit III-9, UIEIS
Future EIS Characteristics - Three Dimensions



Slide #18

Underlying Reasons For EIS Success

- Integration of Applications
 - Personal, Office, Traditional*
- Graphical Interface/Ease of Use
- Increasingly Powerful Data Pipelines
- Growing Tool-Kit Orientation

Slide #19

From INPUT's Study on Data Base Systems Developments

- Involving Over 150 Fortune 1000 Companies
- Conducted in 1988, Updated in 1989

Slide #20

Insert Exhibit II-6, UMDA

Slide #21

Impacts
Relational/Distributed Relational

- Facilitate Distributed Development
- Increase New Development Productivity
- Provide Enriched Pipeline for EIS
- Provide Sophisticated Environment for Office Systems

Slide #22

Implications of These Studies



Level - Increasing Emphasis on Integration at Office

Resource - User Access to All Levels of Computing

*Transaction Processing
Management Information
Office and Personal Systems*

Slide #23

Implications For Office Information Systems

Must Be Architected to:

- Provide Integrated Support (All Levels)
- A Single Interface (All Levels)
- Accomodate New/Emerging Technologies

Slide #24

Office Systems Generalized Model

Integrated Office Systems Interface

Integrated Data Network

Transaction Processing Environment



Slide #25

Heirarchy of Supporting System

Personal Computing	
Traditional Office	
Operational Systems	Integrated Office Architecture
Financial Systems	
Management Information	

Slide #26

Business Value Integrated Office Architecture

Investment for:

Current Operating Efficiency
Long Term Cost Savings
Meeting Business Objectives

Slide #27

Source of Long Term Cost Savings

- Optimizing Cycle Utilization
- Minimizing Development Costs
- Minimizing Training Costs
- Managing Technology Migration
- Achieving Platform Independence



Slide #28

CYCLE UTILIZATION...

- 80% Workstation Cycles in Idle
- 90% Mainframe Utilized

DEVELOPMENT COSTS...

- 30% Reduction - End Users
- 40% Reduction - Programming Staff

Slide #29

TRAINING EXPENSE...

- 40% End Users

(INPUT's End User Computing Study)

Slide #30

TECHNOLOGY MIGRATION.... Unknown

PLATFORM INDEPENDENCE.... Unknown

BUT SIGNIFICANT!

Slide #31

Meeting Other Business Objectives

- Responding To Changing Business Needs
- Tailoring for Specialized Business Environments
- Supporting Transient Requirements



Slide #32

Summing It Up

INTEGRATED OFFICE ARCHITECTURE...

- Provides Short/Long Term Cost Savings
- Sets the Stage for Long Term Business Needs



